

PATHWAYS

DEPARTMENT OF PATHOLOGY & LABORATORY MEDICINE

Volume 9. Issue 1



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DIVERSITY DIALOGUE

The first things that come to mind when considering human rights in relation to healthcare are the "right to health" and "nondiscrimination and equality".

Why is it important to maintain diversity in medical education?

It is acknowledged that medical education cannot remain stagnant and must evolve to stay relevant to new findings and technologies to meet the needs of the local and national population. Therefore, it is important to implement multicultural educational experiences in both formal and nonformal educational settings.

How can we promote diversity and what are the consequences of lacking it?

In a general, "Diversity" and "Health Equity" are practices that empower people by acknowledging and understanding what makes them different, including, but not limited to: age, gender, ethnicity, sexual orientation and religion. Lack of diversity and equality will have a direct impact on underserved communities leading to health disparities and curbing educational experience. The adverse effects of inequalities are avoidable, unnecessary, and unjust. Thus, creating and maintaining a climate of equity, diversity, and inclusion (EDI) are top priorities at Tulane University.

How does Tulane University School of Medicine build a multicultural environment?

Tulane University School of Medicine (SoM) recognizes the great importance of increasing diversity and achieving equity at all levels of its organization. SoM values diversity that includes persons of color, members of the LGBTQIA community, and others who bring a different perspective to the learning environment. Tulane SoM has put in great efforts to create and maintain a multicultural community by creating a collaborative, service-minded, and learning environment to strengthen medical education programs and cultivate EDI within the Tulane campus.

There are a number of EDI initiatives underway throughout the school. For example, SoM requires every member of the SoM community to complete an online training module focused on "Diversity in the Workplace". Also, SoM created a liaison committee on racial and social justice to facilitate bringing different perspectives to the learning environment. Moreover, SoM launched the Anti-Racism Leadership Program (ARLP) and the Emerging Leaders Program (ELP). ARLP and ELP focus on improving EDI by creating positions, establishing strategic plans, evaluating the professionalism of learning programs and improving communication to ensure unbiased contents. Numerous other initiatives in progress for the immediate future can be found here.

SoM and the Pathology department are working to provide structure and direction to improve our academic missions and to help our community. We are proud of what we have achieved so far in a short time, and we hope it inspires other institutes to take similar steps. As Martin Luther King, Jr. once said, "The arc of the moral universe is long, but it bends towards justice". Help your community to exemplify that sentiment.

To learn more about Tulane ARLP, click here.



CLINICAL NEWS

Pathologists' Assistant Program has been awarded 5 years of initial accreditation

The Pathologists' Assistant (PA) Program has been awarded 5 years initial accreditation by NAACLS. This is the longest length of time a new program can be awarded for initial accreditation and no citations were noted which is rare. The first cohort of PA graduation rate is 100% and has a 100% board exam pass rate per NAACLS standards. Eight of nine of the first cohort graduates have taken their ASCP board exam since they graduated in December 2021. All have passed and scored extremely well. The Department congratulates everyone involved in the process, particularly Sarah Garner, the Director of the program, for their outstanding works over the last 7 years.



BRAIN HEALTH

On Good Authority is Tulane University's monthly podcast that brings together experts from various fields to discuss the latest global issues. It's also a great way to get informed about what's happening in the world.

In this <u>podcast</u>, Dr. Demetri Maraganore, a physician at the University of Texas at Houston, discusses the various factors that can affect brain health during the senior years.

More podcast episodes can be found here.

ACGME ACCREDITATION

On February 8, 2022, the Accreditation Council for Graduate Medical Education (ACGME) extended its decision to place the Tulane School of Medicine, in its role as sponsor of our Graduate Medical Education (GME) programs, on probation. The anatomic and clinical pathology (AP/CP) residency program and all the three fellowship programs (cytopathology, dermatopathology, and hematopathology) completed their 10-year ACGME reviews with all receiving continued 10-year accreditation for 2022-2032.

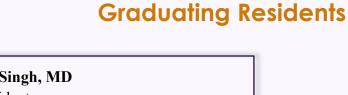
As we all have experienced, maintaining accreditation takes all our collective efforts daily and then some superhuman efforts to prepare and present all that data for the demanding audience!

Thanks to one and all, and especial thanks to Bea Delucca for her detailed organization at every step of the way, and the polished final presentation products!

2021-2022 GRADUATION

The Department of Pathology & Laboratory Medicine held their annual Graduation Ceremony on June 4th at Andrea's venue. We couldn't have picked a better place for a well-deserved night of celebration. Laughter, good food and camaraderie made for a lovely evening. We celebrated fellows' and residents' commitment, resilience, and dedication that have resulted in an accomplishment that we all can reflect upon with satisfaction and pride. Also, the Awards were presented as part of the annual graduation ceremony to recognize residents and fellows for their exemplary ability and outstanding work.







Akannsha Singh, MD

AP/CP Resident

Future: Cytopathology Fellowship - Tulane

University-Pathology

Photo: Dr. Sing and Dr. Schmid

Amber Souers, MD

AP/CP Resident

Future: Dermatopathology Fellowship - ProPath

Services, Dallas, TX

Photo: Dr. Souers and Dr. Schmid





Nicholas Milligan, MD

AP/CP Resident

Future: Hematopathology Fellowship - Wake Forest School of Medicine Winston-Salem, NC

Photo: Dr. Milligan and Dr. Schmid

Jonathan Shih, MD

AP/CP Resident

Future: Pathologist – St. Louis Pathology

Associates, St. Louis, MO *Photo: Dr. Shih and Dr. Schmid*



Graduating Fellows



Nathaniel McLaughlin, MD, PhD
Cytopathology Fellow
Future: Complete Tulane Pathology Residency
Photo: Dr. McLaughlin and Dr. Schmid



Garrett Vick, MD

Dermatopath Fellow, Presented Book & Certificate
Future: Private Practice in Texas

Photo: Dr. Vick and Dr. Wang

Resident Awards



Robert Wood, MD. PG I Nina Dhurandhar, MD Award, Excellence in Cytopathology Photo: Dr. Moroz, Dr. Wood and Dr. Dhurandhar



Jonathan Shih, MD. PG IV Richard J. Reed Award for Excellence in Surgical Pathology Photo: Dr. Shih and Dr. Halat



Konrad Bach, MD. PG I Rokitansky Award – Excellence in Autopsy Pathology Photo: Dr. Bach and Dr. Belyaeva

Welcoming 2022-23 Chief Residents

The Department of Pathology is welcoming the Co-Chief Residents for the 2022-23 academic year:



Yousif Al-Rubaye, MD, PG IV



Dana Perez, MD, PG IV

Also, we would like to thank the three residents who served as Co-Chiefs for 2021:

Nate McLaughlin, MD, Jonathan Shih, MD and Amber Souers, MD

Please join the Pathology Department in welcoming our 2022 Residency Class and Fellows:



Ross Bonnot, MD.
Louisiana State University
School of Medicine-Shreveport,
Shreveport, LA



Sarah Lewis, DO.Philadelphia College of Osteopathic Medicine, Philadelphia, PA



Yuhua Xue, MB.Nantong Medical
College, China



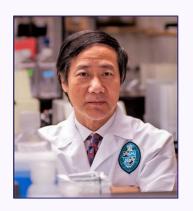
Akannsha Singh, MD Cytopathology Fellow



Bing Hang, MBBSDermatopathology Fellow

LEADERSHIP APPOINTMENTS AND FACULTY AWARDS

Dr. Xiao-Ming Yin, MD., Ph.D., has been named a 2022 recipient of the Chinese-American Chemistry & Chemical Biology Professors Association (CAPA). CAPA is an organization of Chinese American pathologists in the United States and Canada (https://www.capa-ht.org). The Distinguished Pathologist Award is given to an established pathologist with outstanding academic accomplishment and is conferred at its annual meeting. This year the meeting was held at Los Angeles as well as through the Zoom platform on March 19.





Congratulations to Dr. Ryan Craig, MD., Ph.D., on becoming the Director of the Pathology Residency Program starting July 1, 2022

Dr. Craig also won the 2022 Auxiliary Excellence Teaching Award.

This award was established to recognize the members of the basic science faculty with outstanding potential in medical education. Dr. Craig will use the award to support innovative medical teaching to bring the discipline of pathology to the close attention of medical students.

Congratulations to Dr. David Borzik, MD., the recipient of the **Philip J. Daroca Excellence award** in Residency Education. This award is presented by the pathology residents to faculty member in recognition of excellence in teaching to emphasize teaching as an important area in residents' daily lives and to promote high standards in pathology education and training.





Congratulations to Dr. Norah Alghamdi, Ph.D., who received **Young Clinical Scientist Award** from Association of Clinical Scientists at its 143rd annual meeting. This award recognizes young clinical scientists who are early in their first faculty appointment and encourages the development and promotion of quality research.

LEADERSHIP APPOINTMENTS AND FACULTY AWARDS

Sarah Garner was named on **the Pathologist Power List** for the second time! The list contains some of the most inspirational pathologists and laboratory medicine professionals.

Sarah was nominated for the **T1 Professor of the Year** award by The Owl Club, a service organization that aims to improve the medical education at the School of Medicine. The organization holds an annual banquet to recognize outstanding teaching faculty members.

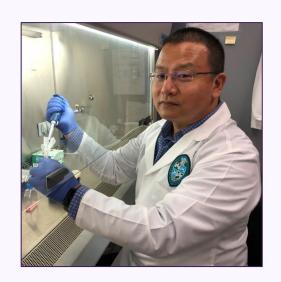
Congratulations Sarah on your well-deserved success!





Congratulations to Dr. Loren Gragert, Ph.D., who received **the Young Investigator Award** from American Transplant Congress 2022. This award is designed to recognize a Young Investigator's outstanding work and to help offset the expense to attend the Congress. Dr. Gragert was also named as a Councilor of International HLA and Immunogenetics Workshop (IHIWS)

Congratulations to Dr. Zhen Lin, MD., Ph.D., on becoming an Associate Editor of Frontiers in Genome Editing, the third most-cited journal in its field, with more than 81,000 citations across 8,600 articles by 45,000 authors. The multidisciplinary journal aims to address the advances in existing and emerging genome genome editing technologies and their implications.



WELCOMES & FAREWELLS



Lynette Desjarlais, MS.

The Pathology Department is excited to welcome Lynette Desjarlais, MS, who joins the Department as an Instructor and Pathologists' Assistant. Lynette obtained her master's degree in Pathologists' Assistant, from Wayne State University, Detroit, MI, and her Bachelor's degree in Biology in Neuroscience from Kalamazoo College, Kalamazoo, MI. Ms. Desjarlais started on April 8th.

Gale Froeba, MPH, MT (ASCP) SC

Gale had her Bachelor's degree in Biology from Montclair State University, and her Master's of Public Health in Health Systems Management from Tulane University School of Public Health and Tropical Medicine. She served as the Administrative Laboratory Director at Tulane Health System, Downtown and Lakeside, and she retired in January 2022. We wish her a long and healthy retirement.





Melissa Rumohr, ACHE, MHA, MT(ASCP)

We are excited to welcome Melissa to Tulane Healthcare System family. Melissa had her Bachelor of Science and Master's degree from University of Cincinnati. Melissa is the Administrative Lab Director at Downtown and Lakeside. Congratulations on the new role.

RESEARCH FACTS (SOM-PATHOLOGY)

Faculty conducting bench research: 19 out of 34

Faculty with research support as PI: 14 out of 19 (73.7%).

Faculty with NIH grants support as PI: 10 out of 19 (52.6%)

Clinical faculty as co-PI: 2/15

Research themes: cancer biology, viral transcription, pathogenesis of the bone and muscle, brain, colon, lung, and liver.

RESEARCH NEWS

CPRA formula to measure HLA antibody sensitization

Dr. Loren Gragert and his team published a <u>new research</u> <u>article</u> in American Journal of Transplantation (AJT) titled: "Stem cell donor HLA typing improves CPRA in kidney allocation."



The paper validates a new approach to measure antibody sensitization using HLA typed reference panel of 6.59 million stem cell donors from National Marrow Donor Program (NMDP). The current United Network for Organ Sharing (UNOS) calculator is not specific and only uses 14,282 deceased donors not including two-field alleles or the DQA1 and DPB1 loci.

You can learn more about the project and public comments here.

The great news is: if this project approved, Dr. Gragert's improved algorithm for measuring HLA antibody sensitization, NMDP CPRA, will be implemented in the *US kidney allocation system* later this year.

Congratulations Dr. Gragert on your great achievement, we are all proud of you!

To test the NMDP CPRA calculator, click here.

AGA Conference

Dr. Suzana Savkovic, Ph.D., and her team received an invitation from the American Gastroenterological Association (AGA), for a lecture presentation at the Research Form, San Diego.



The lecture, Obesity Mediated Transcriptomic Remodeling in Macrophages Via Loss of FOXO3 Facilitates Colonic Inflammation and Tumorigenesis (3691391), was presented by Harrison Penrose; Ph.D., MD., and it took place in San Diego Convention Center during the Digestive Disease Week (DDW) between May 21 and 24, 2022.

In addition, Rida Iftikhar, who won the Fulbright Scholarship, presented a poster at the virtual meeting.

Congratulations Dr. Savkovic on this great recognition!

Watch the poster presentation:



RESEARCH NEWS

The Notable

Most notable faculty in the number of NIH funded projects and award amount



Erik Flemington3 R01, 2 P01 projects,
\$1,693,651



4 R01 projects, \$1,525,054

Yi-Ping Li



Wei Chen2 R01 projects,
\$743,277



Tong Wu2 R01 projects,
\$614,721

Most notable faculty (PIs) in the number of grants submitted/engaged.



Chiung-Kuei Huang 1R21, 1R03, 1 ACS projects



Srikanta Dash
3 R01 projects



Tong Wu
2 R01 projects



Bilon Khambu
2 R01 projects

Ladies Leukemia League grant

Congratulations to Zhen Lin MD, PhD, Associate Professor from Pathology, shared a Ladies Leukemia League (LLL) grant, with two other Cancer Center researchers, Hua Lu, MD, PhD and Matthew Burow, PhD. Each investigator was awarded \$35,000 to help support their leukemia and lymphoma research projects.



PUBLICATION NEWS

Publications Published or accepted in 2021

- 29 papers by 18 faculty members (11/16 of research faculty, 7/18 of clinical faculty)
- First/corresponding authors: 11 papers by 12 faculty (7 research faculty, 5 clinical faculty).
- First/corresponding authored papers with highest impact factors, top 3:
 - ➤ Huda, N., B. Khambu, G. Liu, H. Nakatsumi, S. Yan, X. Chen, M. Ma, Z. Dong, K. I. Nakayama, and X.-M. Yin (2022). "Senescence Connects Autophagy Deficiency to Inflammation and Tumor Progression in the Liver." Cell Mol Gastroenterol Hepatol, IF: 9.225
 - ➤ Hartono, A.B., Kang, H.J., Shi, L., Phipps, W. Ungerleider, N., Giardina, A., Chen, W., Spraggon, L. Somwar, R., Moroz, K., Drewry, D.H., Burow, M.E., Flemington, E., Ladanyi, M. and Lee, S.B. Salt-inducible kinase 1 is a potential therapeutic target in Desmoplastic small round cell tumor. (2022) Oncogenesis, 11, 18: PMID: 35443736. IF: 7.485
 - > Tang CY, Wang H, Zhang Y, Wang Z, Zhu G, McVicar A, Li YP, Chen W. GPR125 positively regulates osteoclastogenesis potentially through AKT-NF-κB and MAPK signaling pathways. Int J Biol Sci. 2022 Mar 6;18(6):2392-2405. doi: 10.7150/ijbs.70620. IF: 6.58
- Most productive: first/corresponding authored (Total):
 - Yin: 2 (7), Wu: 2 (2), Lee: 1 (3), Li: 1 (2), Belyaeva: 1 (2). Yan: 1 (2)

A complete list of publications can be found at Department's website:

Publications | Medicine (tulane.edu)

PHD PROGRAM AT A GLANCE

PhD graduate program: 10 students in 7 laboratories

2 publications and 3 oral/poster presentations

8 presented at 2022 BMS Retreat as first author

8 presented at 2022 Tulane Health Sciences Research Day as first author.

PhD graduate program Director: Gilbert Morris

PUBLICATION ON SPOTLIGHT

Title: Experimental Validation of Novel Glypican 3 Exosomes for the Detection of Hepatocellular Carcinoma in Liver Cirrhosis.

Authors: Aydin Y, Koksal AR, Thevenot P, Chava S, Heidari Z, Lin D, Sandow T, Moroz K, Parsi MA, Scott J, Cohen A, Dash S.



• Dr. Dash, could you provide a brief background of the study?

Thank God, hepatitis C is now cured. The HCV clinical cure does not eliminate the risk of cancer development among patients who has developed liver cirrhosis. There is need for the development of biomarker to study cancer risk after HCV treatment. At present there is no good marker for liver cancer.

What are the research objectives and the significance of the study?

Dr. Dash along with Ari Cohen, MD at Ochsner clinic have been working together to develop a biomarker for liver cancer. The team published a paper (J hepatocellular carcinoma) showing that exosome shedding is increased among patients who developed HCC. They found glypican-3 positive exosomes can be used as a biomarker for liver cancer detection at an early stage.

• What is the scope and delimitation of the study?

This biomarker can be used for early detection of liver cancer and also monitor HCC treatment response and HCC recurrence after resection.

Did you collaborate with other institutes for this work?

This research is currently funded by Veterans Affairs. Dr. Dash is collaborating with multiple centers to determine the power of this biomarker for HCC detection early stage

• What is a future work related to the study?

The team has been working to improve the sensitivity of exosome biomarkers. The team is working on developing new markers that can be used to monitor preneoplastic changes prior to the developing liver cirrhosis and hepatocellular carcinoma.

MASTER'S PROGRMA AT A GLANCE

2021-2022 class: 5 students graduated in May 2022.

2022-2023 class: total 11 students were accepted.

The two programs (1-yr Molecular Medicine and 2-yr Molecular and Cellular Pathobiology) are to be combined and renamed as Molecular Medicine and Health Sciences, which give all students the option to choose between 1-yr or 2-yr.

Director: Haitao Zhang, Co-Director: Gil Morris

RESEARCH NEWS

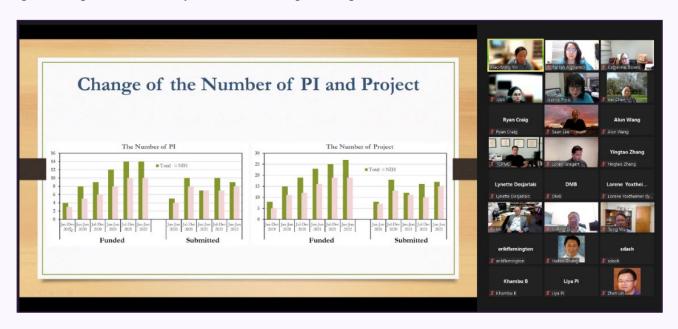
2021-2022 Pathology Department Annual Meeting

The 2021-2022 Pathology Department Annual Meeting was held virtually via Zoom, June 30, 2022.

During the meeting, Dr. Xiao-Ming, the Department Chair, shared the success and growth of the Department in the past six months in many aspects including: education, research, scientific publications and more. Dr. Yin also talked about the issues that face the department, such as the pandemic and how everyone can move forward according to the department goals and milestones.

The meeting was also held to welcome the new fellows and incoming residents who joined the pathology family in July 2022. Some of the changes in the department's directorship and faculty appointments were covered during the meeting. The discussion also featured a number of subjects related to research improvement.

The meeting allowed department members to keep up with the latest developments in the department. It also provided them with an opportunity to network and improve their teamwork. Having teams work together improves efficiency and allows for quick response to various issues.



| Facts about Pathology Department at Tulane | |
|--|-----------------------|
| Total faculty: 33 | Residents: 12 |
| Clinical faculty: 14 | Clinical Fellows: 3 |
| Research Faculty: 17 | PA Student: 9 |
| Tenure pathway: 3 | Graduate Students: 11 |
| Instructor track: 3 | MS & Postdoctoral: 8 |

FOCUS ON FACULTY

Take a moment to get to know Dr. Yin more in our interview below!

• Why did you choose pathology? What is your subspecialty and what made you choose it?

Pathology is the discipline that best connects basic science to clinical practice.

My subspecialty is molecular pathology, which directly links the diagnosis of a disease to its molecular base.

• What aspect of pathology interests you most?

Mechanisms of diseases that can be analyzed with the pathology approach.

What is the most rewarding/best part of your job?

Making progress and seeing people grow in their career and personal spheres.

What makes a good pathologist?

Ability to observe, to learn and to help.

How did you come to Tulane?

I was recruited to Tulane as the Chair of the Department of Pathology and Laboratory Medicine.

• What do you do in your role as the Chair of Department of Pathology and Laboratory Medicine at Tulane?

The chair's job is to ensure the mission of the University and School of Medicine are carried out in the best way.

• Why should a pathology applicant pick Tulane for pathology residency? And what's something unique about the pathology residency program that people may not know about?

Our residency program cares about not only the development of the diagnostic skills of the residents, but also their development as a person, a physician, and a colleague.

• What's your favorite thing and/or spot in New Orleans?

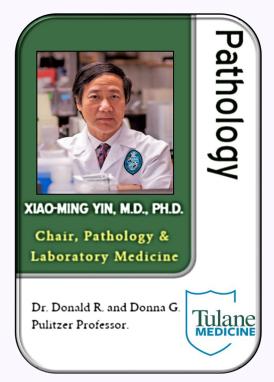
Unfortunately, the last two years in pandemic have not allowed a good exploration of the city, which has many great spots to visit.

• What type of cell would you be and why?

Perhaps the hepatocytes because of my research interests in these cells and because they provide the energy to the whole body.

What is your favorite movie/TV genre?

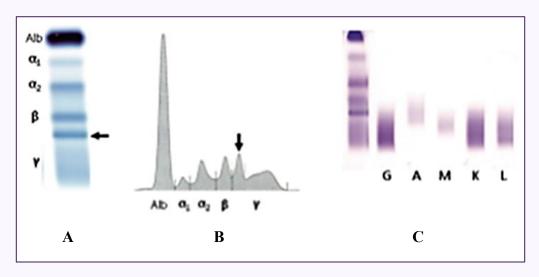
"Action" is always preferred.



CASE OF THE MONTH

Case I:

Serum protein electrophoresis (SPEP) analysis was performed by agarose gel electrophoresis, followed by densitometric scanning (Fig. 1, A and B). A small band was noted between the β and γ fractions that appeared to be consistent with the presence of a monoclonal protein. However, serum protein immunofixation electrophoresis (IFE) did not show monoclonal immunoglobulin (Fig. 1, C).



Based on the position of the band on serum protein electrophoresis and IFE results, what is the most likely explanation for the laboratory findings? How can this be confirmed?

(The answer can be found on page 18)

- A. SPEP is pathognomonic of MGUS and can be confirmed by quantifying the SPEP band.
- B. The location of the band suggests a presence of fibringen in the serum, which can be confirmed by treating the sample with thrombin.
- C. A low detectable monoclonal abnormality due to the presence of small intact monoclonal immunoglobulin in the serum that can be confirmed in a bone marrow biopsy.
- D. The findings suggest the presence of polyclonal gammopathy as a response to an infectious disease and/or hepatic cirrhosis.

Case II:

Select the correct order of Hgb migration on agarose or cellulose acetate at pH 8.6:

(The answer can be found on page 18)

- A. C>F>S>A +
- B. -S>C>A>F+
- C. C>S>F>A +
- D. S>F>A>C +





Case of the month answers:

Case I: B, Case II: C

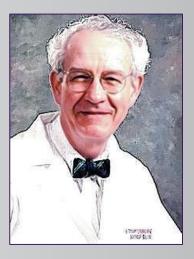


In Memoriam

he Department of Pathology and Laboratory Medicine mourns the loss of a former and highly regarded colleague, Dr. John Charles Scharfenberg who expired on March 10, 2022. Dr. Scharfenberg graduated from Tulane Medical School in 1963. He completed a Charity Hospital rotation on the Tulane Service from 1963-1964, and then served in the U.S. Army. Following his honorable discharge in 1966 he began a surgical residency at Charity Hospital but switched to Pathology and completed his residency in 1971 on the Tulane service. He joined the Pathology Department at Tulane and served as a Lecturer from 1971—1975. He was appointed as Adjunct Assistant Professor of Pathology from 1976 to 1985, Adjunct Associate Professor from 1985 to 1996, and Clinical Professor from 1996 to 2004.

John is survived by his beloved wife of 59 years, Ann Laville Scharfenberg, a daughter, Mary Connelly Scharfenberg George (Kevin), sons John Charles, Jr., and Edward Parkerson (Katherine), granddaughters Charlotte Love Scharfenberg and Virginia Laville Scharfenberg, a brother, Stephen Andrew Scharfenberg (Suzanne), and many nieces and nephews. He was predeceased by his mother and father, Ethel Connelly and Charles Henry Scharfenberg.

A funeral mass was held at Holy Name of Jesus Church on Thursday, March 17, 2022, at 11:00 AM, with visitation from 10:00 AM to 11:00 AM. In lieu of flowers, donations are requested to be given to the charity of your choice, or to Holy Name of Jesus Church, 6367 St. Charles Avenue, New Orleans, LA 70118.



Dr. John Charles Scharfenberg

April 14, 1937 – March 10, 2022

Useful links

Covid-19 Testing Center

SOM Resident/Fellow COVID-19 Information

Pathology Consultative Services

SoM PowerPoint & Poster Templates

Tulane Resident and Fellow Congress (TRFC)

Resources for Residents & Fellows

GME Resources

Did you know

Tulane faculty, residents and students have an existing account on Institute for Healthcare Improvement, IHI.org. To activate it:

Step 1: Go to IHI

Step 2: Register for an account

Step 3: Access content and tools

Let's hear from you!

Share your thoughts and updates with us, we value your feedback

Email us at: nalghamdi@tulane.edu

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